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We claim:

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1     1.     A power distribution system comprising:  
2     at least one load;  
3     a plurality of power sources; and  
4     an interconnect arrangement including a plurality of interconnects, the  
5     interconnects connecting each load to a given number of the sources so that each  
6     load is fully powered and if any one source fails, all loads of the at least one load  
7     remain fully powered.

1     2.     The power distribution system of claim 1 wherein all of the sources are  
2     DC sources.

1     3.     The power distribution system of claim 1 wherein all of the sources are  
2     AC sources.

1     4.     The power distribution system of claim 1 wherein the at least one load,  
2     power source and interconnect arrangement <sup>each</sup> comprises a power distribution  
3     subsystem, wherein the at least one load includes first and second X watt loads,  
4     wherein the plurality of sources includes first and second 2X watt sources, and  
5     wherein the interconnect arrangement includes interconnects that connect the first X  
6     watt load to the first and second 2X watt sources and the second X watt load to the  
7     first and second 2X watt sources.

1     5.     The power distribution system of claim 1 wherein the at least one load,  
2     power source and interconnect arrangement <sup>each</sup> comprises a power distribution  
3     subsystem, wherein the at least one load includes a 2X watt load, wherein the  
4     plurality of sources includes first and second 2X watt sources, and wherein the  
5     interconnect arrangement includes interconnects that connect the 2X watt load to  
6     each of the first and second 2X watt sources.

1     6.     The power distribution system of claim 1 wherein the at least one loads,  
2     power sources and interconnect arrangement <sup>each</sup> comprises a power distribution  
3     subsystem, wherein the at least one load includes a 4X watt load, wherein the  
4     plurality of sources includes first, second, and third 2X watt sources, and wherein the

5 interconnect arrangement includes interconnects that connect the 4X watt load to  
6 each of the first, second, and third 2X watt sources.

1 7. The power distribution system of claim 1 wherein the at least one load,  
2 power source and interconnect arrangement comprises a power distribution  
3 subsystem, wherein the at least one load includes a 5X watt load, wherein the  
4 plurality of sources includes first, second, third, fourth, fifth, and sixth 2X watt  
5 sources, and wherein the interconnect arrangement includes interconnects that  
6 connect the 5X watt load to each of the first, second, third, fourth, fifth, and sixth 2X  
7 watt sources.

1 8. The power distribution system of claim 1 wherein the at least one load  
2 includes a 10X watt load, wherein the plurality of sources includes first, second, third,  
3 fourth, fifth, and sixth 2X watt sources, and wherein the interconnect arrangement  
4 includes interconnects that connect the 10X watt load to each of the first, second,  
5 third, fourth, fifth, and sixth 2X watt sources.

1 ✕ 9. The power distribution system of claim 1 wherein the at least one load  
2 includes first, second, third, fourth, fifth, and sixth X watt loads, wherein the plurality  
3 of sources includes first, second, and third 4X watt sources, and wherein the  
4 interconnect arrangement includes interconnects that connect each of the X watt  
5 loads to two of the 4X watt sources while connecting each of the 4X watt sources to  
6 four different ones of the X watt loads.

1 ✕ ➡ 10. The power distribution system of claim 1 wherein the at least one load  
2 includes first, second, and third 2X watt loads, wherein the plurality of sources  
3 includes first, second, and third 4X watt sources, and wherein the interconnect  
4 arrangement includes interconnects that connect each of the first, second, and third  
5 2X watt loads to two different ones of the 4X watt sources while connecting each of  
6 the first, second, and third 4X watt sources to two different ones of the 2X watt loads.

1 ✕ ➡ 11. The power distribution system of claim 1 wherein the at least one load  
2 includes first and second 4X watt loads, wherein the plurality of sources includes first,  
3 second, and third 4X watt sources, and wherein the interconnect arrangement  
4 includes interconnects that connect each of the first and second 4X watt loads to  
5 each of the first, second, and third 4X watt sources.

1      ➤ 12. The power distribution system of claim 1 wherein the at least one load  
2 includes an ~~8X watt load~~, wherein the plurality of sources includes first, second, and  
3 third ~~4X watt sources~~, and wherein the interconnect arrangement includes  
4 interconnects that connect the ~~8X watt load~~ to each of the first, second, and third ~~4X~~  
5 watt sources, and wherein the interconnect arrangement includes interconnects that  
6 connect the 8X watt load to each of the first, second, and third 4X watt sources.

1 *Indef* 13. A power distribution system comprising:  
2 a plurality of loads;  
3 a plurality of power sources, the power sources having a collective capacity to  
4 fully power all of the loads; and  
5 an interconnect arrangement including a plurality of interconnects, the  
6 interconnects connecting each load to a given number of different ones of the  
7 sources so that each load is fully powered notwithstanding failure of any one of the  
8 sources.

1 *Indef* 14. A method of distributing full power to each one of a plurality of loads  
2 comprising:  
3 providing a plurality of power sources, the power sources being sufficient in  
4 number and capacity such that a combination of less than all of the sources is  
5 sufficient to power each load; and  
6 connecting each load to a given number of the sources so that if any one  
7 source fails, each of the loads remains fully powered.

*method of claim 12*